



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,459	12/26/2001	Sherwin S. Chen	BOIE-1-1037	5650
7590	03/29/2004		EXAMINER	
Robert R. Richardson, P.S. P.O. Box 2677 Silverdale, WA 98383-2677			SWARTHOUT, BRENT	
			ART UNIT	PAPER NUMBER
			2636	
			DATE MAILED: 03/29/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/019,459	CHEN ET AL.
Examiner	Art Unit	
Brent A Swarthout	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 and 4-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1 and 4-8 is/are rejected.
- 7) Claim(s) 9-10 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Brent Swarthout

BRENT A. SWARTHOUT
PRIMARY EXAMINER

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

Art Unit: 2636

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

i. Claims 1 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wichgers et al. in view of Frederick (146).

Wichgers discloses a flight display for aircraft for displaying pictorial representation of aircraft 36 in plane view and or aircraft 48 in profile view, including terrain elevations, except for specifically having width and lengths of specific size and an altitude reference scale. Choosing to have displays represent specific range values would have been obvious, in order to only obtain terrain data relative to a flight path of interest.

Furthermore, Frederick teaches desirability of displaying an altitude scale adjacent a view of aircraft location with respect to terrain elevation (Fig.3).

It would have been obvious to display altitude scale adjacent a display showing aircraft position with respect to terrain height, in order to allow a pilot to know more specifically how high terrain was in case it was necessary to navigate around it.

Regarding claims 6-7, choosing a specific range for displays would have been obvious, merely depending on the maneuvering capabilities of the aircraft.

2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wichgers et al. in view of Frederick (146) and Brame.

- a. Brame teaches desirability of providing an essentially rectangular swath between boundaries t1 and t2 (Fig. 2).
 - ii. It would have been obvious to use a particular rectangular swath in a system as disclosed by Wichgers and Frederick, since a user would have had greater interest in terrain ahead, instead of to the side of a flight path, since this would have provided further coverage in the direction of movement.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wichgers et al. in view of Frederick (146) and Cummings.

Cummings teaches desirability of providing an aircraft icon to the left of the display (Fig.3). It would have been obvious to display an aircraft icon to the left of a display in a system as disclosed by Wichgers and Frederick, in order that a pilot could have observed more features in front of the flight path, as opposed to features beside or behind a path, which would have been of less interest.

4. Claims 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Responsive to applicant's arguments filed 1-15-04, Wichgers in valid prior art since it was filed on 12 June 1997.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A Swarthout whose telephone number is 703-305-4383. The examiner can normally be reached on M-F from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass, can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2636

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brent A Swarthout
Examiner
Art Unit 2636

BRENT A. SWARTHOUT
PRIMARY EXAMINER